

CLAIMS

What is claimed is:

1. A method of automatically creating a plurality of individually customized documents, each for a corresponding one of a plurality of individuals, said method comprising the steps of:
 - 4 creating a plurality of document components;
 - 5 creating a plurality of rules governing document assembly;
 - 6 providing document specific data and text, said provided data and text being further specific to individuals intended to receive customized copies of documents
 - 7 being published; and
 - 9 providing a document request, said document request initiating assembly of a
 - 10 document, said document being assembled responsive to said created rules and
 - 11 provided data and text.
1. 2. A method as in claim 1 wherein the rules comprise:
 - 2 document rules directing component selection and text selection;
 - 3 condition rules directing selection of logic conditions to be evaluated; and
 - 4 action rules directing document editing actions to be taken responsive to
 - 5 logical evaluation of selected document rules and condition rules.
1. 3. A method as in claim 2 wherein a plurality of said document rules are assembled into a logic function that is spread across multiple ones of said plurality of condition rules.
1. 4. A method as in claim 3 wherein said plurality of document rules include operators from condition rules directing collection of said multiple rules to form said logic functions.

- 1 5. A method as in claim 4 wherein ones of said document rules select other
2 subsequent document rules, condition rules and variable text rules.
- 1 6. A method as in claim 5 wherein ones of said document rules conditionally
2 select said subsequent document rules, condition rules and variable text rules.
- 1 7. A method as in claim 6 wherein said document rules further contain multiple
2 business layers, each of said business layers providing a client specific organization,
3 content and business rules.
- 1 8. A method as in claim 7 wherein unused said business layers are marked null.
- 1 9. A method as in claim 7 wherein said business layers provide document
2 component authorization security control, document reporting control and control for
3 searching and indexing rules blocks.
- 1 10. A method as in claim 9 wherein document component authorization security
2 control designates user read and write access to document components.
- 1 11. A method as in claim 1 wherein a plurality of said document rules are always
2 true, always true rules being unconditional rules.
- 1 12. A method as in claim 1 wherein each of said condition rules is linked to a
2 document rule.
- 1 13. A method as in claim 12 wherein each of said condition rules contain
2 pointers indicating any next condition and any subcondition.
- 1 14. A method as in claim 13 wherein blocks of said condition rules are selected
2 for a corresponding document rule, said blocks providing a logic function to be
3 evaluated for said corresponding document rule.

1 15. A method as in claim 1 wherein each of said action rules corresponds to one
2 of said document rules.

1 16. A method as in claim 15 wherein each of said action rules contains a specific
2 action on a component with respect to said document being created.

1 17. A method as in claim 15 wherein the plurality of said action rules are
2 grouped into groups, each group of action rules being identified for one of said
3 document rules.

1 18. A method as in claim 16 wherein document components are inserted, deleted
2 or replaced as directed by a particular action rule.

1 19. A data structure for automatically assembling a plurality of individually
2 customized documents, each assembled document for a corresponding one of a
3 plurality of individuals, said data structure comprising:
4 a plurality of selectable document components;
5 document rules directing document component selection and text selection;
6 condition rules each linked to one of said document rules and directing
7 selection of logic conditions to be evaluated;
8 action rules each linked to one of said document rules and directing
9 document editing actions to be taken responsive to logical evaluation of selected
10 document rules and condition rules; and
11 collected data and text, document specific and specific to individuals
12 intended to receive customized copies of documents being published, whereby in
13 response to a document request initiating assembly of a document, said document is
14 assembled responsive to said created rules and collected data and text.

- 1 20. A data structure as in claim 19 wherein selecting a block of said document
2 rules selects a logic function that is spread across multiple ones of said plurality of
3 condition rules.
- 1 21. A data structure as in claim 20 wherein ones of said document rules are
2 linked to select other subsequent document rules, condition rules and variable text
3 rules.
- 1 22. A data structure as in claim 21 wherein ones of said document rules are
2 linked to conditionally select said subsequent document rules, condition rules and
3 variable text rules.
- 1 23. A data structure as in claim 22 wherein said document rules further contain
2 multiple business layers, each of said business layers providing client specific
3 organization, content and business rules, unused said business layers being marked
4 null.
- 1 24. A data structure as in claim 23 wherein said business layers contain
2 document component authorization security control, document reporting control and
3 control for searching and indexing rules blocks.
- 1 25. A data structure as in claim 24 wherein document component authorization
2 security control authorizes read and write access for selected document components.
- 1 26. A data structure as in claim 22 wherein a plurality of said document rules are
2 always true, always true rules being unconditional rules.
- 1 27. A data structure as in claim 19 wherein ones of said condition rules point to a
2 next condition and a subcondition.

1 29. A data structure as in claim 28 wherein said action rules selectively cause
2 linked document components to be inserted, deleted or replaced in a document being
3 created.